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Nota di contenuto	Section I: Endophytes in Agriculture -- 1. Endophytes in the Course of Mineral Nutrient Management in Agriculture: An Introduction; D.K. Maheshwari, S. Dheeman -- 2. Biological control by fungal and bacterial endophytes; M. Romero -- 3. Microbial endophytes mediated phosphorus solubilization: Sustainable approach to improve soil fertility and plant growth; S. S. Sindhu -- 4. Cattle dung inhabiting bacteria enhance yield of Foeniculum vulgare Mill; Sandhya Dhiman -- Section II: Endophytes and Mineral Nutrition -- 5. Contribution of endophytic non-rhizobial bacteria to improve nitrogen-fixation efficiency of legume crops; Hassan Etesami -- 6. Endophytes and Sustainable Agriculture: Recent Prospects of Nutrient Management; M. Ghorbhanpour -- 7. Role of Endophytes- PGPR in yield enhancement of Sesamum indicum L. under integrated nutrient management; S. Kumar, R.C. Dubey -- 8. Beneficial Effects of Dark Septate Endophytes to Crop Mineral Nutrition; Jerri Zilli -- 9. Tropical endophytic Bacillus enhance plant growth and nutrient uptake in maize; Eliane Aparecida Gomes --

Section III: Beneficial Microbes and Mineral Nutrition -- 10. Mycorrhizal inhabiting endophytic actinobacteria in plant growth promotion; W. Pathom-Aree -- 11. Fungal endophytes in the improvement of Biomass Yield, Nutritive Value and Accumulation of Minerals in certain crops; Oscar Santamaria -- 12. Mineralization by plant growth promoting bacteria: What we know so far and where we are headed to in the genomic era?; Chokchai Kittiwongwattana -- 13. Re-evaluating the potential functions of endophytic PGPR for acquisition of mineral nutrients by plants; Becky Nancy Aloo -- 14. *Bacillus* sp. as PGPR and their significance in enhancement of nutrient use efficiency of certain Millet crops; Yogesh Kumar Negi, Chitra Pandey -- Conclusion: Current approaches of endophytes in mineral nutrient management; K.G. Ramawat, D.K. Maheshwari .

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## Sommario/riassunto

The challenges to meet the food requirement of the burgeoning population and stabilized productivity of agriculture lands can only be met by a second green revolution. After steadily declining for over a decade hunger is on the rise again, affecting million people of the global population. Therefore, crop yields must be increased substantially over the coming decades to keep pace with global food demand. The plant rhizosphere is a multidimensional and dynamic ecological environment of complicated microbe–plant interactions for harnessing essential macro and micronutrients from a limited nutrient pool. This book will showcase naturally-occurring endophyte which can be explored for nutrient mineralization and mobilization for sustainable agriculture. This will cover recent trends, prospects, critical commentaries and advancement in the research area focusing on naturally-occurring beneficial endophytic microbes. Thus, it is proposed to bring out new scientific insights and frontiers of research that have exploration of endophyte for mineral nutrient management in soil and crops. The chapters are contributed by leading scientists across the globe. The book will be useful to agronomists, microbiologists, ecologists, plant pathologists, molecular biologists, environmentalists, policy makers, conservationists, and NGOs working for the crop production and productivity development and consequently over all agricultural significance.

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